

ARM CROPS

No. 7

September 1923

Gratis

For the Western Cape Province more Dairying means more Spring Forage Crops and more Spring Forage Crops mean more Dairy Produce. The two go hand in hand and together they make for progress. Together they will bring greater grain crops, but that will not be realised just yet, excepting by the few. Too many farmers still believe that another cow added to their present stock must needs mean a smaller grain crop. It is just the reverse. More cows will improve the land for the grain crops and consequently as much and more grain will be grown on the same area and the cows will be carried in addition. But, this can only be done if the cows are treated right. They must be fed in the scarce season so that they may be there to consume the immense amount of grazing that is available in spring on Western Province farms. If the cows are not there to consume it the grazing goes to waste and that is a loss to the farmer.

In order to carry the extra number of animals in the scarce season they must be fed when necessary and the careful farmer will make provision accordingly. He cannot afford to buy all the food that will be necessary and therefore he must grow it. Certain concentrates will be purchased because they may be obtainable at a cheaper price than will pay to grow them. Others must be grown on the farm and all the essential green forage and hay should be grown on the farm. In short, you will cultivate for the cows. And, in doing this you will provide the means of a more scientific crop rotation than has hitherto been possible. This all means more intensive cultivation and in time it will mean a shorter drought period for the land will be enriched in humus and will then retain moisture longer than under the old conditions.

It is not only the Western Province farmer who must face this problem. In the north there is a similar problem. The dry and cold winter season is the scarce period there and at that time the animals need succulent food to keep them in health. Silage is probably the solution of that difficulty and again we come back to Spring or Summer Forage Crops.

The purpose of this leaflet is to direct your attention to crops that are suitable for sowing at this season and thus help you to solve this great problem to your own advantage.

MAIZE FOR GREEN FEEDING OR SILAGE.

As a dairy green feed or as silage, the value of Maize is well known and we need not comment in detail upon it.

The following selected and carefully machined seed is offered. All the varieties listed are strong and rapid growers and will produce a heavy crop of succulent fodder:

Chester County.—Very early. 25 lbs 6/-; 100 lbs 20/-; 200 lbs 37/6

Flat White (Hickory King Type.)—Graded seed. 25 lbs 4/-; 100 lbs 13/6; 200 lbs 25/-

Hickory King.—Best selected seed. This variety produces an exceptionally heavy crop of green forage. 25 lbs 6/-; 100 lbs 20/-; 200 lbs 37/6

Iowa Silver Mine.—Medium early and always a favourite. 25 lbs 6/-; 100 lbs 20/-; 200 lbs 37/6

Orangia Yellow.—Graded seed. 25 lbs 3/6; 100 lbs 12/6; 200 lbs 22/6.

Potchefstroom Pearl.—Medium early, flat, white, strong grower. 25 lbs 6/-; 100 lbs 20/-; 200 lbs 37/6.

Sahara.—A new variety to us. 25 lbs 6/-; 100 lbs 20/-; 200 lbs 37/6.

Teosinte.—This plant is allied to Maize, which it somewhat resembles, and it requires similar treatment. It gives a very heavy yield of forage. The seed should be soaked overnight in hot water before sowing. Price 1/6 per lb; 25 lbs 35/-; 50 lbs 65/-; 100 lbs 120/-.

SORGHUM.

Sorghum is a splendid Forage Crop requiring the same soil and climatic conditions as Maize. For silage it is excellent, producing a heavy yield of succulent fodder which should be cut when the seed is forming. As a green forage it is equally good and the saccharine varieties are particularly relished by cattle. If cut early—in the milk stage or sooner—Sorghum will usually give a very good second cutting or at least good grazing for some time afterwards. In the Western Province, even in a dry summer, the roots will usually live through and give good grazing, or a light cutting in March or April after the early rains begin.

Early Amber Cane.—A saccharine variety which is much relished by cattle and makes a good milk producing forage. Per lb 6d; 25 lbs 6/-; 100 lbs 20/-.

Planter's Friend.—A very heavy cropper. Imported seed only. Per lb 9d; 25 lbs 12/6; 100 lbs 40/-.

Saccaline.—A new variety of Sorghum which has recently been receiving a great deal of attention in Australia owing to its extraordinary qualities as a forage crop. Its great value lies in its persistent ratooning habit, throwing up new growths from the roots after each cutting. It has, in several instances, been known to stand through the winter, showing that it is a very hardy variety. Sow broadcast at the rate of 25 lbs per acre, or in drills 9 lbs to 10 lbs per acre. It responds well to summer cultivation between the rows. Per lb 9d; 25 lbs 12/6; 100 lbs 40/-.

Curnow Tall Corn.—We believe this to be the finest of all varieties for grain production and it is at the same time splendid for forage and silage, producing an enormously heavy crop of palatable forage and silage made from it is greatly relished by stock. This variety has been grown very extensively on our farms in the Vryburg district for a number of years. It has been greatly improved by selection and has amply demonstrated that it is the most reliable kind under severe conditions. The grain produced from this variety far surpasses any other in quality and consequently commands the best price. Per lb 6d; 25 lbs 5/-; 100 lbs 16/-; 200 lbs 30/- for the finest re-cleaned seed.

White Kaffir Corn.—The ordinary kind. Per lb 6d; 25 lbs 3/6; 100 lbs 12/6; 200 lbs 22/6.

Sudan Grass.—Is much thinner in the straw than the other varieties of Sorghum and a crop of it, if not too tall, much resembles a crop of oats. It is splendid for a grazing crop and may be cured for hay in which form it is highly nutritious. Since its introduction it has made rapid strides and it is undoubtedly a crop of great value. Sow about 10 to 15 lbs per acre. It stools well. Per lb 8d; 25 lbs 12/6; 100 lbs 45/-.

MILLETS.

These are much like the Sorghums and grown under similar conditions but are finer in the straw and (excepting Pearl Millet) do not grow so tall as the Sorghums. They are good for green forage and for silage or may be cured for hay.

Boer Manna.—Per lb 1/-; 25 lbs 15/-; 100 lbs 50/-

Japan Barnyard.—One of the best for quality of fodder and a heavy cropper. Per lb 6d; 25 lbs 7/6; 100 lbs 25/-

Pearl Millet.—A great drought resister and succeeds on hot sandy soils. Cut as soon as the first flower heads begin to appear. It usually gives at least two cuttings. Per lb 6d; 25 lbs 7/6; 100 lbs 22/6

Rapoko.—Not a true millet but a useful summer crop of similar nature. It thrives in very hot weather and may be cut or grazed. Per lb 6d; 25 lbs 7/6; 100 lbs 22/6

White Proso Millet.—This is known also as Broom Corn Millet because the seed heads resemble the heads of Broom Corn. It is splendid as a grain crop and at our farm near Vryburg we have found it highly drought resistant, therefore we believe it will also prove very useful as a forage crop. Per lb 6d; 25 lbs 8/6; 100 lbs 30/-

GRASSES.

There are not very many grasses that are suitable for spring sowing under winter rainfall. Most of the European grasses are better sown in autumn under such conditions. Under summer rainfall, however, conditions are quite different and it is necessary to sow grasses at the most favourable time. When that time is must be determined in each district by growers accustomed to the local conditions. It is quite impossible for us to give any definite advice on this point.

Where irrigation is possible the Rye Grasses and other European grasses are frequently sown in March even under summer rainfall and that approximates to the Western Province practice of sowing in autumn. Here it is preferably April or May, but only because the earlier rains are insufficient. It would be better if we could sow earlier.

For these varying conditions it seems to us advisable to divide the grasses into two lists under the arbitrary names of "Summer Grasses" and "Winter Grasses." This will give growers a rough idea of the nature of the grass and it will be easily understood that it would be useless to sow the so-called Summer varieties in late autumn because they would suffer too severely during winter. On the other hand, the varieties classed as "Winter" are best sown in autumn where that is possible, while, under other conditions, they may also be tried during the rainy season, whenever that may be.

We are much encouraged by the increasing demand for grasses from various parts of the Cape Province. Curiously, while the winter-rainfall area is clearly suited to pasture grasses and we have been advocating their more extensive use in these parts for many years, the demand is actually coming from less favoured areas where irrigation has to be used for establishing the pasture.

For many years we have consistently advocated the more extensive use of the Rye Grasses as the main item of a pasture mixture and we are glad to say that recent developments fully bear out our high opinion of the value of these grasses.

A recent development is the more extensive use of Clovers particularly in conjunction with Kikuyu Grass. It seems that both the Clover and the Kikuyu are benefitted by their asso-

ciation in the same pasture. Apparently the Kikuyu derives advantage from the nitrogen-producing properties of the Clover and also from the crowding which prevents the compacting of the Kikuyu which is so noticeable after a few years when it is grown alone. How the Clover benefits is a little obscure, but the opinion seems general that it does better than alone and of course the grazing is a better balanced food.

Summer Grasses.

- Rhodes Grass** (*Chloris gayana*).—A good summer grower, but tender to frost. It spreads by rooting at the nodes. Per lb 3/3; 25 lbs 75/-
- Quick or Bermuda Grass** (*Cynodon dactylon*).—An excellent lawn grass but very difficult to raise from seed. Per lb 5/-; Roots 7/6 per sack. A great drought resister.
- Star Grass** (*Cynodon plectostachyum*).—A new grass for trial. Plants per 100 2/6
- Teff Grass** (*Eragrostis Abyssinica*).—The great South African summer hay grass. Per lb 6d; 25 lbs 10/-; 50 lbs 17/6; 100 lbs 32/6 for re-cleaned seed.
- Paspalum Dilatatum**.—The well known tussock grass which is now well established throughout South Africa. The seed requires warm soil and warm conditions for two or three weeks to secure germination. Sow 20 to 25 lbs per acre. Per lb 6d; 25 lbs 10/-; 50 lbs 17/6; 100 lbs 32/6
- Paspalum Virgatum**.—The upright-growing variety. It is said that this variety stands better against the extremes of cold and drought. Per lb 2/-; 25 lbs 42/6; 50 lbs 80/-; 100 lbs 150/-
- Kikuyu Grass** (*Pennisetum clandestinum*).—Per sack 10/6; 10 sacks or more at 7/6 per sack.
- Napier's Fodder** (*Pennisetum purpureum*).—A perennial species of *Pennisetum*. It suckers freely and propagation is by root division. It grows to 10 or 12 feet and if cut before it becomes coarse it will yield several cuttings each season of very succulent fodder which is greedily eaten by all kinds of stock. Plants 1/6 per dozen; 7/6 per 100
- Cape Canary Grass**.—An annual grass that will give an excellent crop of palatable hay and may also be sown for green forage. It may also be treated as a winter grass. Per lb 9d; 25 lbs 12/6; 50 lbs 22/6; 100 lbs 40/-
- Toowoomba Canary Grass** (*Phalaris bulbosa*).—This remarkable grass should be much more extensively used. We have great faith in its merits and believe it is a grass that will yet fill a big place in the agriculture of this country. It is a strong summer grower but can also endure a great deal of cold. It is apparently able to live through severe frosts and in mild districts it makes heavy winter growth also. In addition to these qualities it is a great drought resister. You must certainly give it a trial. Seed per oz 1/-; ¼ lb 2/6; lb 8/6. We also offer plants which have been grown on from an individual plant selected on account of its great drought resisting qualities. Per 100 2/-; per 1000 12/6
- Canary Grass** (*Phalaris Canariensis*).—This annual species produces the Birdseed of commerce and it will also provide a heavy crop of forage or hay if cut before the seed has fully matured. Per lb 9d; 25 lbs 12/6; 50 lbs 22/6; 100 lbs 40/-

Winter Grasses.

- Creeping Bent Grass** (*Agrostis stolonifera alba*).—Useful in lawn and pasture mixtures. Per lb 3/6; 25 lbs 80/-
- Red Top or Herd's Grass** (*Agrostis vulgaris*).—Although classed as a winter grass, this species might be tried under summer rainfall as it tolerates a hot climate. It is an important pasture grass in the Southern States of America. Per lb 3/-; 25 lbs 60/-; 100 lbs 210/-
- Cocksfoot** (*Dactylis glomerata*).—Does remarkably well in Griqualand East and any similar area should give it a trial. It is also an important item in our pasture mixtures. Per lb 1/6; 25 lbs 30/-; 100 lbs 100/-
- Meadow Fescue** (*Festuca pratensis*).—An excellent perennial grass for pasture mixtures. It is liked by all stock and is a desirable variety for hay. Per lb 1/9; 25 lbs 35/-; 100 lbs 125/-
- Tall Fescue** (*Festuca elatior*).—A robust grower well suited to severe conditions. It thrives under widely differing conditions and may be regarded as a drought resister. Probably best suited to the highveld. Per lb 3/3; 25 lbs 75/-; 100 lbs 275/-
- Italian Rye Grass** (*Lolium multiflorum*).—A biennial hay and fodder grass of very great value. For permanent pasture it is used with Perennial Rye Grass because it gives a good return during the first year and until it is replaced by the slower maturing perennial variety. Per lb 1/3; 25 lbs 22/6; 100 lbs 80/-
- Perennial Rye Grass** (*Lolium perenne*).—Probably the most valuable of all pasture grasses and more largely grown for hay than any other. It should form the principal ingredient of every pasture mixture. It does not give a big yield the first season and therefore it should be sown in conjunction with the Italian variety which fills this gap to great advantage and is eventually displaced by the more permanent variety. Per lb 1/3; 25 lbs 22/6; 100 lbs 80/-
- Western Wolths Rye Grass**.—An annual species and the most rapid grower of all the Rye Grasses. It is splendid for a hay crop. Per lb 1/9; 25 lbs 35/-; 100 lbs 125/-
- Mixed Rye Grass**.—A mixture of Perennial and Italian varieties. The advantage lies in the cheaper price but if you are particular about the proportions it is better to buy the varieties separately. Per lb 1/-; 25 lbs 20/-; 100 lbs 60/-
- Paspalum**.—This is sometimes sown in autumn also, but in that case it should be sown as early as possible so as to secure germination before the cold weather begins.
- Toowoomba Canary Grass** (*Phalaris bulbosa*).—This may be sown in autumn as well as in the spring and the same remark applies to the other species of *Phalaris* (see under summer grasses).
- Timothy** (*Phleum pratense*).—This is considered the most nutritious of all the English hay and pasture grasses and should be included in every pasture mixture. Unlike many perennials, it produces probably its best results the first year after sowing. It is capable of enduring the extremes of heat and cold and may therefore be used at high altitudes. Sow 20 lbs per acre. Per lb 1/6; 25 lbs 30/-; 100 lbs 100/-

Kentucky Blue Grass (*Poa pratensis*).—An excellent perennial for pasture mixtures. Will grow in very wet land but will also withstand considerable drought. Per lb 3/-; 25 lbs 65/-; 100 lbs 240/-

Pasture Mixtures.

We will make suitable mixtures, according to our best judgment, for any conditions that may be described. Usually these mixtures can be supplied at the prices quoted below but occasionally it may be necessary to include a larger proportion than usual of the more expensive kinds and in such cases an equivalent price will be charged.

No. 1 Pasture Mixture , dry situa-	20lbs	40lbs	100lbs
tions, winter rains ...			
No. 2 Pasture Mixture , wet situa-			
tions, winter rains ...			
No. 3 Pasture Mixture , dry situa-	27/6	50/-	100/-
tions, summer rains ...			
No. 4 Pasture Mixture , wet situa-			
tions, summer rains ...			
Special Highveld Mixture ...	30/-	55/-	120/-

Quantity to Sow.

In the case of Pasture Mixtures 40 lbs per acre is the usual quantity sown and it is always advisable to give a full seeding.

Most grasses, sown alone, are seeded at the rate of from 30 to 40 lbs per acre. The following exceptions may be noted: *Phalaris bulbosa* about 8 lbs; *Teff* about 6 lbs; *Paspalum* about 25 lbs; the Rye Grasses always about 40 lbs.

LEGUMENS.

Of these Lucerne is best known in South Africa and it is undoubtedly the most important. It is grown almost exclusively as a permanent pasture or for hay. However, among the others are crops of very great importance for pasture and many are exceedingly valuable for green manuring.

LUCERNE.

Cape Grown Provence Lucerne.—Starke's Recleaned Seed:
Per lb 1/-; 25 lbs 20/-; 50 lbs 35/-; 100 lbs 62/6

Tree Lucerne (*Medicago arborea*).—Per lb 8/-

Tagasaste.—Sometimes also called Tree Lucerne. 7/6 lb

CLOVERS AND KINDRED PLANTS.

	Per lb	25lbs	50lbs	100lbs
Alsike Clover ...	2/-	45/-	80/-	150/-
Berseem or Egyptian Clover ...	3/6	67/6	130/-	250/-
Broad Red Clover ...	3/-	60/-	115/-	225/-
Crimson Clover ...	2/-	45/-	80/-	150/-
Dwarf White Clover ...	4/6	110/-	210/-	400/-
Hubam Clover ...	7/6	162/6	300/-	550/-
Japanese Clover ...	4/-	87/6		
Kentish Wild White Clover ...	25/-			
(Per oz 2/-)				
Perennial Red Clover ...	4/-	85/-	160/-	300/-
Subterranean Clover ...	10/-			
Tagasaste ...	7/6			

BEANS, PEAS, VETCHES, ETC.

	Per lb	25lbs	50lbs	100lbs.
"Osceolo" Velvet Bean ...	9d	15/-	27/6	50/-
"100 Day" Velvet Bean ...				
"Stingless" Velvet Bean ...				
Gram or Chick Pea ...	1/6	31/3		
Dhal or Pigeon Pea ...	9d	15/-	27/6	50/-
Hollybrook Early Soya Beans ...	1/3	30/-	55/-	100/-
Mammoth Yellow Soya Beans ...	1/3	30/-	55/-	100/-
"Brabham" Cowpeas ...	1/3	27/6	52/6	100/-
"Taylor" Cowpeas ...	1/3	27/6	52/6	100/-
"White Bechuana" Cowpeas ...	6d	9/6	17/6	30/-
"Zwartbekje" Cowpeas ...	8d	12/6	20/-	37/6
"Mixed" Cowpeas ...	6d	7/6	12/6	22/6
Spring Vetches ...	1/-	18/6	35/-	65/-
Kidney Vetch ...	2/6			
Sand or Hairy Vetch ...	2/-	42/6	80/-	150/-
Spanish Bunch Peanuts ...	1/3	25/-	45/-	80/-
Tennessee Red Peanuts ...	1/3	25/-	45/-	80/-
Serradella ...	1/6	30/-	55/-	100/-

ROOT CROPS.

It is late for these in the Western Province but in the North sowing will soon begin in earnest. It is hardly necessary to emphasise their value. A price list is all that is needed. Our only recommendation is that you should double the acreage usually sown.

MANGOLDS.

	Per lb	25lbs	50lbs	100lbs
Mammoth Long Red ...	2/	35/-	60/-	110/-
Yellow Globe ...	2/-	35/-	60/-	110/-
Barre's Sludstrup ...	2/-	35/-	65/-	125/-

SILVER BEET

Suitable for grazing ...	3/-	65/-	115/-	200/-
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SUGAR BEET.

Improved White ...	2/-	37/6	70/-	130/-
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TURNIPS.

Purple Top Mammoth ...	2/6	37/6	70/-	125/-
White Stone or Stubble ...	2/6	37/6	70/-	125/-
White American Strapleaf ...	2/6	37/6	70/-	125/-

SWEDES.

Webb's Imperial Purple Top ...	2/6	45/-	80/-	150/-
Sutton's Champion ...	2/6	45/-	80/-	150/-
Giant King ...	2/6	45/-	80/-	150/-
Kangaroo or Bronze Top ...	2/6	45/-	80/-	150/-
Pioneer Turnip Swede ...	3/-	70/-	130/-	250/-
Norrkoping Improved Green Top ...	3/6	75/-	135/-	250/-

CHICORY.

Large-Rooted Magdeburgh ...	3/-	60/-	105/-	200/-
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SPANISH CHUFAS

Or Earth Almonds	1/6	30/-	55/-	100/-
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TOBACCO.

We carry a stock of the best varieties of Turkish and Virginian Tobacco seed as per list below:—

TOBACCO	Per oz	$\frac{1}{4}$ lb	$\frac{1}{2}$ lb	1 lb
Brazilian American ...	2/6	7/6	13/6	25/-
Clarkesville ...	2/6	7/6	13/6	25/-
Connecticut Broadleaf ...	2/6	7/6	13/6	25/-
Goldfinder ...	3/-	10/6	18/6	35/-
Improved Hester ...	3/-	10/6	18/6	35/-
Improved White Stem Oronoko ...	3/-	10/6	18/6	35/-
Improved Yellow Oronoko ...	3/-	10/6	18/6	35/-
"Soulook" Turkish ...	3/-	10/6	18/6	35/-
Virginia Oak Hill Yellow ...	3/-	10/6	18/6	35/-
Yellow Pryor ...	3/-	10/6	18/6	35/-

We have Imported Seed of the following Turkish varieties:

	Per oz	$\frac{1}{4}$ lb
"Ayasculook" Turkish ...	6/6	21/-
"Cavalla" Turkish ...	6/6	21/-

RAPE, KALE AND MUSTARD.

	Per lb	25lbs	50lbs	100lbs
Dwarf Essex Rape ...	1/-	22 6	40/-	75/-
Thousand Headed Kale ...	2/-	35/-	65/-	125/-
Chou Moellier or Marrow Kale ...	4/-	87/6	160/-	300/-
White Mustard ...	2/-	45/-	80/-	150/-

MELONS AND GOURDS.

	$\frac{1}{4}$ lb	1 lb	25 lbs
Starke's Mammoth White Kaffir Melon ...	1/3	3/6	75/-
Woodside Long White Kaffir Melon ...	1/3	3/6	75/-
Majorda Melon ...	1/-	3/-	55/-
Virginia Mammoth Pumpkin ...	2/6	8/6	
Woodside Boer Pumpkin ...	2/6	8/6	
Fraserdale Improved Boer Pumpkin	2/6	8/6	
Cattle Pumpkin ...	1/-	3/-	62/6

MISCELLANEOUS CROPS.

	Per lb	25lbs	50lbs	100lbs
Atriplex nummularia (Saltbush) ...	3/6	80/-	150/-	275/-
Atriplex semibaccata (Saltbush) ...	1/6	30/-	55/-	100/-
Sheep's Burnet ...	2/-	45/-	80/-	150/-
Kudzu Vine (per oz. 2/-) ...	20/-			
Common Buckwheat ...	6d	10/6	17/6	30/-
Japanese Buckwheat ...	1/-	15/-	27/6	50/-
Sunflower "Prolific White" ...	5/-			

A new dwarf variety

Sunflower, Tall Russian (Striped Seed)	6d	7/6	13/6	25/-
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Issued by the associated firms:

C. STARKE & CO., Ltd.

Agricultural and Horticultural
Seedsmen and Nurserymen

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Telephone 585 Woodstock
Telegrams: "Seedstarke, Mowbray."

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The Nurseries, Liesbeek Road
ROSEBANK, CAPE TOWN

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